REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

Status of the claims

Claims 1, 2 and 16-18 are pending in this application, of which claims 1 and 18 are independent. All of the pending claims stand rejected. By this amendment, claims 1 and 18 are amended. No new matter has been added by this amendment.

Objection

It is indicated that the recitation of "a nucleic acid probes" in claim 1 has been objected to. In response, the relevant portion of claim 1 has been amended to recite -- a nucleic acid probe --.

Applicant respectfully requests that this objection be withdrawn.

Rejection under 35 U.S.C. §102

Claim 18 has been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Pub. No. 2003/0072685 to Goldman et al. ("Goldman"). [Page 3 of the Office Action]

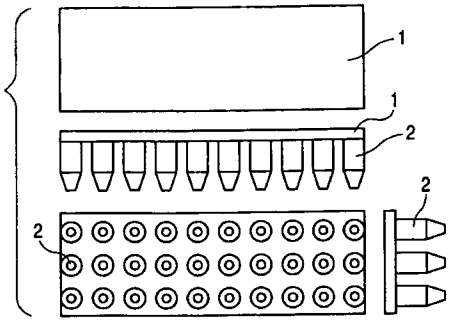
Claim 18 has been amended for further clarification. In particular, amended claim 18 recites, *inter alia*, that:

> **Claim 18 (currently amended):** A heat conduction adapter for using a heater with a plurality of holes for microtubes in temperature control for a nucleic acid probe array substrate, the heat conduction adapter comprising:
>
> a face provided with a plurality of legs having the same shape as that of the microtubes, and
>
> an another face being flat for contacting with a face of the nucleic acid probe array substrate or a cover forming a chamber with the nucleic acid probe array substrate,
>
> wherein the plurality of legs on the face of the heat conduction adapter are fitted into the plurality of holes of the heat conduction adapter, thus bringing the heater into thermal contact with the nucleic acid probe array. [Emphasis added]

Referring to Fig. 2 as shown below, the heat conduction adapter of claim 18 as amended includes a face provided with a plurality of legs 2 having the same shape as that of the

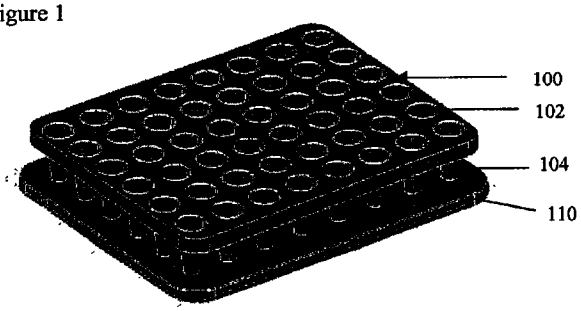
microtubes, and another face being flat for contacting with a face of the nucleic acid probe array substrate.

FIG. 2



Goldman discloses a heat-conducting sample block that includes a top plate and a base plate, each having upper and lower faces, the upper face of the top plate having a recess therein. The recess has an opening for accepting a sample or sample vessel, and the lower face of the top plate has a projection extending towards and fixedly engaged with a notch on the upper face of the base plate. See, e.g., Abstract.

Figure 1



In particular, Applicant notes that Goldman discloses a top plate as shown in Fig. 1 reproduced above. However, since the top plate has many recesses, naturally it results in poor adhesion (a poor close contact) with a flat glass slide or the like. In addition, projections are formed corresponding to the shape of each sample vessel. Accordingly, Goldman's structure is clearly different from the heat conduction adapter of the present invention in terms of the

purpose and construction.

Reconsideration and withdrawal of the rejection of claim 18 under 35 U.S.C. §102(e) is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 1, 2, 16 and 17 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Goldman in view of U.S. Patent No. 5,364,790 to Atwood et al. ("Atwood"). [Page 5 of the Office Action] Claims 1, 2 and 16-18 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Pub. No. 2002/0039728 to Kain et al. ("Kain") in view of an article entitled "PCR: Running Hot and Fast, Science, Statistical Software Supplement, 27 February 1997" by St. George ("George") and U.S. Patent No. 6,130,279 to Suzuki et al. ("Suzuki").

Independent claims 1 has been amended for further clarification. In particular, amended claim 1 recites, *inter alia*, that:

> a heat conduction member for improving thermal diffusion in the liquid within said chamber, the heat conduction member being in contact with said substrate or said cover member with their contacting surfaces being flat; and
>
> ...
>
> wherein said heat conduction member being for filling the plurality of holes at the contact portion of said temperature control block including a plurality of legs and each of the plurality of legs of said heat conduction member is adapted to be inserted into and in close contact with each one of the plurality of holes at the contact portion of said temperature control block , which is located on a back surface of said substrate, and the temperature control block being in contact with said substrate or said cover member. [Emphasis added]

As discussed above, Goldman is different from the present invention in at least the heat conduction member and the temperature control block. Also, Atwood is cited as disclosing a plurality of primers in the glass substrate, and a heat contacting member in contact with the slide having a plurality of holes but fails to teach, e.g., the specific structures of the heat conduction member and as recited in amended claim 1. Accordingly, claim 1 as amended is believed

neither anticipated by nor rendered obvious in view of the references cited by the Examiner (i.e., Goldman and Atwook), either taken alone or in combination, for at least the reasons discussed above.

Kain discloses sensor compositions comprising a composite array of individual arrays, to allow for simultaneous processing of a number of samples. Applicant notes that Kain discloses a provision of lids in four corners for the purpose of alignment. However, Applicant notes that the Kain's lids, aiming at improving the heat conduction between a heater having recessed and a flat surface of slide glass, do not have the specific structure as recited in amended claim 1. For example, Kain's structure fails to teach, e.g., that the plurality of legs for filling all the holes in the contact portion of the temperature control block.

As the secondary references George and Suzuki cannot remedy this lacking element in Kain, amended claim 1 is believed neither anticipated by nor rendered obvious in view of the references cited by the Examiner (i.e., Kain, George and Suzuki), either taken alone or in combination, for at least the reasons discussed above. Reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §103(a) is respectfully requested.

Applicant has chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. However, these statements should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Also, Applicant has not individually addressed the rejections of all of the dependent claims because Applicant submits that the independent claim 1 from which they respectively depend is in condition for allowance as set forth above. Applicant however reserves the right to address such rejections of the dependent claims should such be necessary.

Applicant believes that the application as amended including the new claim is in

condition for allowance and such action is respectfully requested.

AUTHORIZATION

A petition for a two-month extension of time along with the associated fee is enclosed, extending the date for responding until March 10, 2009. Should an additional extension of time be required to render this paper timely filed, such extension is hereby petitioned and the Commissioner is authorized to charge any other fees necessitated by this Amendment, or credit any overpayment to our Deposit Account No. 50-4827 (Order No. 1232-5069). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
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Dated: March 10, 2009

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